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GUIDELINES FOR STATE VOCATIONAL AGRICULTURE CURRICULUM MATERIALS SERVICES, A RESEARCH REPORT OF A GRADUATE STUDY. RESEARCH SERIES IN AGRICULTURAL EDUCATION.

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PROBLEMS OF VOCATIONAL AGRICULTURE TEACHERS IN KEEPING ABREAST OF TECHNICAL KNOWLEDGE AND OBTAINING OR PREPARING MATERIALS STRUCTURED IN LOGICAL SEQUENCE FOR TEACHING PROMPTED A STUDY TO DEVELOP GUIDELINES FOR ORGANIZING AND OPERATING A STATEWIDE VOCATIONAL AGRICULTURE CURRICULUM MATERIALS SERVICE. A SURVEY OF 48 STATE DIRECTORS AND 48 STATE SUPERVISORS OF VOCATIONAL AGRICULTURE AND 45 PERSONS RESPONSIBLE FOR CURRICULUM MATERIALS WORK PROVIDED INFORMATION ON SERVICES TO TEACHERS, ADMINISTRATIVE PROCEDURES, LENGTH OF TIME SERVICES HAD BEEN IN EFFECT, AND THE VALUE OF THE SERVICES. THE CURRICULUM MATERIALS SERVICE WAS THEORIZED AS BEING AN EDUCATIONAL ORGANIZATION ENGAGED IN SELECTION, EVALUATION, PROCUREMENT, PRODUCTION, AND DISTRIBUTION OF CURRICULUM MATERIALS THAT ASSIST IN OBTAINING PREDETERMINED, DESIRABLE CHANGES IN STUDENTS. ITS SUCCESS DEPENDS UPON THE EXTENT TO WHICH 11 CONDITIONS CONCERNING (1) ADMINISTRATION, USE OF STAFF, TEACHER, AND SPECIALIST ADVISORY GROUPS, AND (2) PRODUCTION OF MATERIALS TO MEET SPECIFIC CRITERIA ARE ACHIEVED. GUIDELINES, BASED ON THE PROPOSED THEORY AND FINDINGS OF THE STUDY ARE PRESENTED FOR 24 ASPECTS OF CURRICULUM MATERIALS SERVICE. FINDINGS CONCERNING THE EXTENT OF CURRICULUM MATERIALS ACTIVITIES IN 45 STATES, THE SURVEY INSTRUMENTS, AND A BIBLIOGRAPHY ARE INCLUDED. THE COMPLETE REPORT OF THE PH.D. THESIS, "GUIDELINES FOR ORGANIZING AND OPERATING A STATE VOCATIONAL AGRICULTURE CURRICULUM MATERIALS SERVICE," IS AVAILABLE AS 66-6293 FOR \$3.05 ON MICROFILM AND FOR \$10.60 AS XEROXED COPY FROM UNIVERSITY MICROFILMS, INC., 300 NORTH ZEEB ROAD, ANN ARBOR, MICHIGAN 48106. (JH)

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RESEARCH SERIES IN AGRICULTURAL EDUCATION

**A Research Report
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Graduate Study**

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AGRICULTURE CURRICULUM MATERIALS SERVICE**

Harlan E. Ridenour and Ralph J. Woodin

Issued by

**The Department of Agricultural Education
College of Agriculture and Home Economics
The Ohio State University
Columbus, Ohio 43210**

October, 1966

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GUIDELINES FOR STATE VOCATIONAL AGRICULTURE

CURRICULUM MATERIALS SERVICES

The teacher of vocational agriculture is charged with the responsibility for meeting the agricultural education needs of the people in his school community. This includes those engaged in farming or preparing to enter farming and those who need knowledge and skills in agriculture for entry into or advancement in agricultural occupations other than farming.

The field of agriculture is broad and contains many specialized areas. Due to the limitations of time, teacher ability, and the infeasibility of one person becoming proficient in the many subject matter areas there has been a recognized need for providing help to teachers in the form of instructional materials.

The problems of teachers of vocational agriculture relating to curricular materials can be divided into three main areas. (1) The problem of keeping abreast of vast amounts of technical knowledge in the various fields of agriculture. (2) The problem of finding time to become informed with technical and professional knowledge. (3) The problem of obtaining or preparing materials that are structured in a logical sequence for teaching.

The very nature of these curricular materials problems of teachers indicate the need for a well organized state-wide instructional materials service to provide assistance to teachers in the

selection, procurement, development, and evaluation of instructional materials directly related to curriculum objectives.

Purpose of the Study

The primary purpose of this study was the development of guidelines for the organization and operation of a state-wide vocational agriculture curriculum materials service.

Specific Objectives

Five specific objectives were identified to provide direction for the study. They were stated as follows:

1. To develop a theory for the organization and operation of a curriculum materials service.
2. To identify the types of assistance vocational agriculture curriculum materials personnel believe teachers should be provided.
3. To identify the trends in the kinds of assistance being provided by vocational agriculture curriculum materials services to teachers of vocational agriculture.
4. To identify the successful procedures and policies of the various vocational agriculture curriculum materials services concerning the development and operation of services for providing teachers of vocational agriculture with curriculum materials.
5. To develop effective guidelines, based on theory and practice, for the organization and operation of a vocational agriculture curriculum materials service.

Method of Investigation

Information regarding the administrative organization, personnel involved, cooperation among the vocational education services, and the emphasis placed on providing curriculum materials assistance to teachers in the various states was secured by means of separate questionnaires sent to each of the state directors of vocational education and the state supervisors of vocational agriculture. A one hundred per cent return was received.

The state supervisors of vocational agriculture had identified those persons responsible for curriculum materials work within their respective states. In turn one of these persons in each of the forty-eight contiguous states was requested to complete a questionnaire that revealed the kinds of curriculum materials services rendered to teachers, the kinds of materials produced by the curriculum materials service, the administrative procedures followed in conducting the affairs of the service, the period of time over which these procedures and services had been in effect, and their opinion of the value of these procedures and services as a means of providing curriculum materials assistance to teachers of vocational agriculture. Returns were received from forty-five of the forty-eight contiguous states contacted.

A review of literature and research reports dealing with recommendations for curriculum materials work, theories of learning, theories of communication, theories of diffusion, and administrative patterns for curriculum development and implementation was conducted concurrently with the previously mentioned steps in the investigation.

This information together with information on current practice in the various states was used in formulating a theory and a set of guidelines for the organization and operation of a curriculum materials service for vocational education in agriculture on a state level.

Conclusions

The following conclusions were made based on the information gained as a result of the study:

1. A curriculum materials service was theorized as being an educational organization engaged in the selection, evaluation, procurement, production, and distribution of curriculum materials that should provide adequate educational experiences that will assist in bringing about predetermined, desirable changes in vocational agriculture students.

2. The administrative structure of the curriculum materials services in the majority of the states appeared to be weak in terms of providing adequate personnel, having written policies, and organized procedures for providing materials.

3. The majority of curriculum materials workers within the states devote a small proportion of their professional time to curriculum materials work.

4. In most states little attempt was made to coordinate the work of the curriculum materials personnel with the development of the vocational agriculture curriculum.

5. An organized method of classifying or indexing and distributing curriculum materials to schools was practiced by a limited number of states.

6. Most states financed their curriculum materials work by using state and federal funds and distributed limited amounts of curriculum materials free to the local schools.

7. Cooperation among the four vocational services (distributive education, home economics, trades and industry, and agriculture) in the development of instructional materials was carried out on a limited basis in a small number of states.

8. The most common curriculum materials activity was the selection and distribution to teachers of materials, such as government bulletins, commercial materials, and films that had been prepared by outside agencies.

9. The greater part of the curriculum materials produced within the states consisted of printed teacher guides or subject matter units for teacher use. Only a small amount of materials designed for student use were produced and less attention was devoted to the production of audiovisual materials than to printed matter.

10. The majority of the states that adopted a practice or procedure dealing with curriculum materials services continued that practice or procedure.

11. There was a trend over a 30-year period toward an increase in the volume of curriculum materials produced and services offered among the various states.

12. There was a great disparity among the states in the amounts of curriculum materials and services available to teachers.

13. Few procedures were evident for checking the technical accuracy and organization of the subject matter content of the instructional materials or for determining the effectiveness of these

materials in the classroom. The services of agricultural specialists were used on a limited basis and few states had a program for evaluating the effectiveness of their materials.

14. The 38 curriculum materials practices and procedures suggested by the writer were considered to be valuable means of providing assistance to teachers of vocational agriculture even though many states did not extensively provide these services.

15. Most curriculum materials workers in the 45 states indicated that regional or national leadership in coordinating and implementing curriculum materials work could be of "high" value.

16. The guidelines developed as a part of this study should be used and further tested as a means of providing direction for the organization and operation of a state curriculum materials service.

Major Findings

The Theoretical Background

An over-all objective of a curriculum materials service is to assist teachers in making desirable changes in curriculum organization and in structuring subject matter into logical sequences of learning experiences that will result in the improvement of instruction in vocational agriculture.

A theory that provides direction for the operation of a curriculum materials service entails a basic understanding of theories of learning, theories of communication, and theories of diffusion. Each of these theories deals with how change takes place within an individual and how one individual may work with another in guiding this change in a desirable direction.

The theories of learning emphasize the psychological nature of how change takes place within an individual.

Communication theories deal with methods of conveying information and understanding from one person to another which results in a change in the understanding.

Diffusion of innovations theories deal with how ideas or messages may be conveyed from their source to using groups for their adoption. The adoption of these innovations results in a change in the adopting individuals.

An understanding of the theories dealing with how changes may be brought about within an individual is vital for the successful operation of a curriculum materials service.

In view of the above background of philosophy and research, the following theory is proposed for the organization and operation of a curriculum materials service for the benefit of a vocational agriculture program in a state or group of states.

The Proposed Theory

Cooperative activities in the selection, evaluation, procurement, production, and dissemination of curricular materials for teachers of vocational agriculture will elicit improvement in the teaching-learning process, induce curricular innovation, reduce duplication of effort on the part of teachers in preparing for teaching, save teacher time, and inform teachers of professional and technical developments. The accomplishment of such efforts depends upon the extent to which each of the following conditions are achieved:

1. The curriculum materials service is properly organized and adequately staffed and financed.

2. Operating policies cooperatively developed are approved by the administrative heads.

3. Guidance from staff and teacher advisory groups is utilized.

4. Curriculum planning and development activities are coordinated with the work of the curriculum materials service.

5. The materials are such that they will assist in the attainment of vocational objectives.

6. The materials provided are logically sequenced and make provision for the most appropriate learning experiences for the teaching-learning process.

7. The materials provided are within the frame of reference of the learners.

8. A variety of materials that supply a broad range of curriculum materials to meet teacher and pupil needs are made available.

9. Assistance of staff members and teachers is elicited in conducting the activities of the curriculum materials service.

10. The assistance of subject matter and technological specialists is used to insure technical accuracy of the materials produced.

11. The evaluation of curriculum materials and services is thorough and continuous.

Guidelines for Organizing and Operating a Curriculum Materials Service

The proposed theory, plus certain findings of this study, suggests certain guidelines that may be applied to the organization

and operation of a curriculum materials service on a state-wide basis for the benefit of the vocational agriculture program. It is not inferred that each of these guidelines are of equal importance to any given states situation but rather that in total they offer useful guidance to those engaged in this endeavor. The guidelines are as follows:

Guidelines

1. Function of a Curriculum Materials Service:

The primary function of a curriculum materials service is to select, procure, produce, evaluate, and disseminate educational media that will enable teachers to provide meaningful educational experiences as a part of the curriculum.

2. Staff Personnel:

The professional leadership of a curriculum materials service should rest with professional educators whose education and background of experience enables them to prepare appropriate curriculum materials for teachers.

3. Staff Assistance:

A curriculum materials service should have an adequate secretarial and technician staff as a part of its organization or have the services of these persons readily available to support the work of the professional educators of the service.

4. Curriculum Development:

The professional curriculum materials personnel should have an active part in curriculum development along with state staff members, teacher educators, local teachers, and lay groups.

5. Securing Curriculum Materials:

Educational materials available from other sources should be assessed by the curriculum materials service to determine their adaptability to the vocational agriculture curriculum. Those materials which provide fruitful educational experiences for students should be made available to local schools.

6. Preparation of Curriculum Materials:

Leadership should be assumed by a curriculum materials service in the preparation of educational media in the subject matter areas in which adequate materials are not presently available.

7. Structuring Curriculum Materials:

The assistance of specialists, within a field of study, should be secured by curriculum materials specialists when preparing instructional materials to insure that technical information is accurate and organized into a logical sequence.

8. Experience Frame of Reference:

Instructional materials should be within the frame of reference of the intended users of the materials.

9. Implementing New Programs:

An instructional materials service should assist in the implementation of new programs by providing educational materials in the new areas of instruction.

10. Methods of Instruction and Curriculum Materials:

Effective methods of instruction by teachers should be encouraged by a curriculum materials service through structuring information into a logical sequence for teaching and in suggesting the most appropriate educational experiences that should be provided students.

11. Maintaining Teacher Initiative:

A curriculum materials service should encourage teacher initiative in developing their own instructional materials through providing examples and suggestions that will assist teachers in collecting and developing materials.

12. Instructional Materials Library:

The development of adequate libraries of instructional materials in local schools should be encouraged by a curriculum materials service through providing guidance and assistance.

13. In-Service Education:

In-service training programs should be conducted with teachers to acquaint them with new materials and their most effective use.

14. Establishing Priority for Services:

Priorities should be established by a curriculum materials service on the information provided to schools and the subject matter areas in which the service will work. These priorities should be based on the needs of the total program of vocational education in agriculture.

15. Guides for the Preparation of Materials:

A curriculum materials service should prepare instructional manuals to serve as guides in the preparation of the various kinds of educational materials.

16. Evaluation of Materials:

A curriculum materials service should develop evaluative procedures that can be used for determining the effectiveness of the various educational media disseminated through the service.

17. Use of "Feedback" in Formulating Policies:

A curriculum materials service should establish regular procedures for collecting and evaluating the reactions or "feedback" from teachers concerning their opinion of how effectively the service is meeting the curriculum materials needs in local schools. This information should be applied as one means of formulating new policy.

18. Use of Advisory Groups:

An advisory group composed of staff members and teachers who are familiar with curriculum materials work should be utilized by a curriculum materials service. Such a group should serve to evaluate and provide suggestions concerning the objectives, policies, and procedures of the service in terms of the objectives of the program of vocational education in agriculture.

19. Involving Teachers in the Preparation of Materials:

A curriculum materials service should involve professionally and technically qualified teachers in the preparation of curriculum materials.

20. New Educational Media:

The specialists of a curriculum materials service should keep informed of new developments in educational media and theory.

21. Research and Development:

A research and development program should be established within a curriculum materials service to develop educational innovations through research that may be incorporated into the vocational agriculture instructional program.

22. Principles of Diffusion:

A curriculum materials service should apply sound principles of diffusion in the dissemination of instructional materials to teachers and in achieving the adoption of new ideas and procedures by local teachers.

23. Selection of Instructional Materials:

A wide variety of instructional materials concerning the subject matter areas of the vocational agriculture program within the state which utilizes a variety of educational media should be made available. From this teachers could select the materials that support the curriculum in their local schools. This might be called the "cafeteria" style of presenting materials.

24. Encouraging New Programs:

The instructional materials required for initiating new educational programs containing unfamiliar subject matter should be provided by a curriculum materials service. Such materials might be made available to teachers in a "package" form.

Extent of Curriculum Materials Activities in 45 States in 1964

The extent of curriculum materials work in vocational agriculture being conducted within the states was determined by conducting a survey of those persons within the states responsible for this work. The major findings were as follows:

Production of Printed Materials

The study revealed that the greatest volume of curriculum materials had been produced in the form of printed matter. Table 1

shows a comparison of six items of printed materials with six items of audiovisual materials that have been prepared by the states.

Table 1 also indicates that the greatest volume of materials was produced specifically for teacher use. Only two kinds of materials, programmed instruction and student resource units, were of a nature to directly involve the student in the teaching-learning situation. The other materials either provide information and instructions for the teacher or require passive activities for the student such as reading or observing.

TABLE 1. Volume of printed and audiovisual materials produced during 1962, 1963, and 1964 by those states engaged in the production of these materials.

Printed Materials		Audiovisual Materials	
Kind	Volume*	Kind	Volume*
Subject matter units	489.0	Prepare graphic materials	247.8
Instructions for demonstrations	210.0	35 mm slide films	59.2
Teacher guides	168.0	2" x 2" slide series	125.4
Programmed instruction	21.0	Models	80.6
Student resource units	20.7	Tape recordings	36.0
Instructions for dramatization	<u>11.0</u>	Motion pictures	<u>8.0</u>
Total	919.7	Total	557.0

*Volume was determined by multiplying the number of states producing the selected items times the mean number of items produced by the states during the past three years.

The data in Table 1 indicates that a relatively small volume of curriculum materials was produced. This is based on the fact that in 1963 there were 10,418 teachers of vocational agriculture who were teaching 488,624 secondary students and 339,203 adult students in the United States.

Table 2 shows that in general the printed materials that supplied subject matter information and were designed for teacher use were the most common. Of less importance were the teacher centered units or guides which were mainly devoted to suggesting course outlines and methods of teaching.

TABLE 2. Relative importance of selected printed curriculum materials provided by state curriculum materials services.

Kind of Materials Prepared	Per cent of states engaged in activity	Mean number of years activity conducted	Mean value of activity*
Subject Matter Units	62.2	14.1	3.0
Teacher Guides	62.2	13.7	2.9
Student Resource Units	22.2	9.5	2.6
Programmed Instruction	8.8	2.5	2.3

* Scale

Very High	High	Average	Little	None
4	3	2	1	0

The student centered materials such as student resource units and units of programmed instruction were of comparatively less importance when considered from the standpoint of the percentage of states that had produced these items, the period of time over which they had been produced, and their mean value ratings.

The study also revealed that only fourteen states illustrated their vocational agriculture publications.

Production of Audiovisual Materials

The audiovisual materials that received the greatest amount of attention within the states were 2" x 2" slide series followed by graphic materials, models, 35mm slide films, and tape recordings. Little emphasis was placed on the production of educational television and motion pictures. This information is summarized in Table 3.

TABLE 3. Relative importance of selected audiovisual materials provided by state curriculum materials services.

Kind of Materials Prepared	Per cent of states engaged in activity	Mean number of years activity conducted	Mean value of activity*
Produce 2" x 2" Slide Series	46.6	8.9	3.0
Prepare Graphic Materials	31.1	8.2	3.0
Produce Models	28.8	8.9	2.5
Produce 35 mm Slide Films	20	9.2	2.8

TABLE 3.--Continued

Kind of Materials Prepared	Per cent of states engaged in activity	Mean number of years activity conducted	Mean value of activity*
Produce Tape Recordings	15.5	3.4	2.1
Produce Educational Television Programs	4.4	5	2.3
Produce Educational Motion Pictures	2.2	5	2.5

*Scale

Very High	High	Average	Little	None
4	3	2	1	0

Selection and Dissemination of Curriculum Materials

The study revealed that a majority of the states, as shown in Table 4, provided assistance to their teachers by selecting appropriate government bulletins for distribution to local schools. About half of the states conducted a related service which consisted of preparing a curriculum materials news letter. This letter announced to teachers the availability of recommended instructional materials.

Table 4 also revealed that three-fourths of the states distributed curriculum materials free to local schools. About one-fourth of the states sold all or part of their materials.

TABLE 4. Relative importance of certain selection and dissemination activities practiced by state curriculum materials services.

Selection and Dissemination Activity	Per cent of states engaged in activity	Mean number of years activity conducted	Mean value of activity*
1. Select government bulletins for distribution.	82.2	16.3	3.0
2. Distribute materials free to schools.	75.5	18.4	2.9
3. Classify materials.	42.2	11.5	2.9
4. Provide materials in cafeteria style.	28.8	13.8	2.7
5. Sell curriculum materials.	26.6	11.8	2.5
6. Provide materials in package form.	15.5	8.4	2.6

*Scale

Very High	High	Average	Little	None
4	3	2	1	0

Less than half (42.2 per cent) of the states had an indexing system for classifying the various materials according to subject matter content and use. The lack of a workable indexing system could make it virtually impossible for a teacher to establish a usable library of instructional materials.

The practices of providing a large assortment of curriculum materials in cafeteria style from which teachers might choose needed materials or of providing materials which cover a given subject matter area in package form was used in only a limited number of states.

Trends in Curriculum Materials Work

The states have been initiating one or more of the 38 selected curriculum materials practices and procedures at an increasing rate during recent years. Table 5 shows the rate of adoption trend from the start of vocational agriculture in 1917 to and including 1964.

The study also revealed that very few of the 38 practices and procedures were discontinued after they had been started by a state.

TABLE 5. Trend in rate of adoption of 38 selected curriculum materials procedures and practices, 1917 to 1964, inclusive.

Distribution in Years	Number of instances practices had been adopted by states
1-10	366
11-20	193
21-30	67
31 over	26

Dissemination of Information

Table 6 shows that teacher workshops were used by the majority of the states for the dissemination of information. This was followed by the practice of informing staff members who work with teachers of

the curriculum materials work being accomplished within the state. The staff members in turn carried the information on to teachers. However, the study revealed that much of the time other staff members ignored the curriculum materials work.

TABLE 6. Relative importance of selected policies currently used in conducting curriculum materials activities.

Policies Adopted	Per cent states adopting policy	Mean number years policy used	Mean value* of policy
1. Teacher workshops are used in disseminating curriculum materials.	75.5	11.7	3.6
2. Staff members are kept informed of curriculum materials work.	62.2	13.6	3.6
3. Curriculum development committee recommendations are used in determining materials used.	44.4	11.6	3.3
4. An advisory committee is used to guide curriculum materials service.	33.3	11.5	3.4
5. Written policies adopted by curriculum materials service.	11.1	8.6	2.9

* Scale

Very High	High	Average	Little	None
4	3	2	1	0

Use of Advisory Groups

Only one-third of the states (Table 6) sought direction from advisory groups and curriculum development committees. Few states (11.1%) had written policies approved by administrative officials dealing with the operating procedures for curriculum materials work.

Preparation of Materials

Table 7 shows that staff members, teachers, commercial persons and agricultural specialists were utilized in that order in the preparation of materials. The somewhat limited use of specialists in the preparation of materials may account for some of the problems from lack of technical accuracy in curriculum materials.

Evaluation of Materials

With the great emphasis placed on research and development it was surprising to note that only 22.2 per cent of the states (Table 7) had evaluated the effectiveness of their curriculum materials work. In this same vein only about half of the states (Table 7) had conducted studies and surveys to determine curriculum materials needs. This failure to use research in determining curriculum materials needs and in measuring the effectiveness of the materials which have been produced appeared to be a grave weakness in most state programs of curriculum materials.

Organization of Curriculum Materials Service

The study indicated that fifteen of the states had a formally organized curriculum materials service with a staff member in charge.

Other states conducted their curriculum materials work through the voluntary efforts of interested staff members. A few states had no type of curriculum materials service to provide assistance to their teachers. This information is presented in Table 7.

TABLE 7. Relative importance of selected procedures for preparing curriculum materials.

Procedures Adopted	Per cent of states adopting procedure	Mean number of years procedure used	Mean value of procedure*
1. Staff members take part in preparation of materials.	64.4	11.3	3.4
2. Leadership in curriculum development is provided through producing new kinds of materials.	62.2	12.2	3.3
3. Teachers take part in the preparation of materials.	55.5	11.4	3.3
4. Commercial persons assist in the preparation of materials.	53.3	14.1	3.3
5. Studies and surveys are used with teachers in determining curriculum materials needs.	51.1	12.9	3.2
6. Agricultural specialists assist in preparation of materials.	46.6	13.8	3.2
7. Curriculum materials are evaluated to determine their effectiveness.	22.2	12.5	3.2

*Scale

Very High	High	Average	Little	None
4	3	2	1	0

A total of 96 persons devoted from 5 to 100 per cent of their time to curriculum materials work. This amounts to an equivalent of 26.8 full-time workers. Most curriculum materials workers spent from five to twenty-five per cent of their time in this way. Only seven states had full-time curriculum materials workers. This, in the writer's opinion, explains the lack of adequately prepared materials and the failure to adopt operating policies and procedures.

Financing of Curriculum Materials Work

The curriculum materials work in 29 of the states was financed with state and federal funds, as shown in Table 8. Only two states depended entirely upon the profit resulting from the sale of materials while five states used a combination of the two sources of funds. In thirteen states no provisions were made for financing curriculum materials work.

TABLE 8. Source of funds for financing curriculum materials work in 49 states as reported by state supervisors of vocational agriculture.

Source of Funds	Number of States Using Source
1. State and federal funds.	29
2. Profits resulting from sale of materials.	2
3. Joint financing using state and federal funds with funds resulting from sale of materials.	5
4. No funds provided for development of curriculum materials.	13

Cooperation Among Services in
Curriculum Materials Work

Table 9 shows a low degree of cooperation among the vocational education services in the use of facilities and equipment for the production of curriculum materials.

TABLE 9. Cooperation among the vocational services (Distributive Education, Home Economics, Trades and Industry, and Vocational Agriculture) in the preparation of curriculum materials as reported by State Directors of Vocational Education.*

Areas of Cooperation	Number of vocational services working together with equipment, facilities, and in preparing materials			
	None	2 services	3 services	4 services
1. Preparation of curriculum materials (writing, artwork, photography).	21	8	2	4
2. Joint use of printing equipment.	23	5	2	21
3. Joint use of photographic equipment.	31	3	2	16
4. Joint use of office space.	28	3	3	15

*Twelve states reported no cooperation in use of equipment and facilities mentioned in the table.

*None of the states reported a unified curriculum materials service for all the vocational services.

National Leadership in Curriculum
Materials Work

The proposal that national leadership be devoted to the coordination of curriculum materials work, facilitating the exchange of materials among the states, production of materials, and leadership in conducting curriculum materials research was rated highly by curriculum materials workers (Table 10).

TABLE 10. Mean value and rank of procedures for supplying curriculum materials on a regional or national basis.

Suggested Regional or National Procedures	Mean value*	Number of respondents	Rank
1. Leadership provided for coordinating curriculum materials work.	3.5	42	1
2. Maintain central office to facilitate exchange of materials among states.	3.4	42	2
3. Produce materials suitable for widespread use in a central office.	3.2	41	3
4. Conduct research on national and regional levels to determine curriculum materials needs.	3.2	42	3

*Scale

Very High	High	Average	Little	None
4	3	2	1	0

APPENDIX A

October 1, 1964

Mr. J. F. Ingram
State Director of Vocational Education
State Department of Education
Montgomery, Alabama 36104

Dear Mr. Ingram:

A study is being conducted by the Ohio Vocational Agriculture Curriculum Materials Service for the purpose of formulating guidelines for the organization and operation of state curriculum materials services for teachers of vocational agriculture.

One of the steps in formulating these guidelines will be to determine the curriculum materials assistance being provided by the various vocational services in your state. Will you please provide me with this information from your state by completing the enclosed questionnaire and returning it in the self-addressed envelope.

The provision in the Vocational Education Act of 1963 for services that improve the quality of vocational education programs is one of the factors prompting this study. Your assistance will be greatly appreciated.

Sincerely yours,

Harlan E. Ridenour
Assistant Supervisor
Vocational Agriculture

HER:bab
Enclosure

A knowledge of the assistance being provided in the development and distribution of curriculum materials by each of the vocational services will aid in the formulation of guidelines for the development of a state vocational agriculture curriculum materials service.

Vocational Service	Number of Years Curriculum Materials have been Developed for Teachers. (Mark 0 if none)	Does Service have Full-time Professional Staff? (If so, list number of persons)
Distributive Education		
Home Economics		
Trade and Industry		
Vocational Agriculture		

Cooperation among the vocational services in the preparation and distribution of curriculum materials

Areas of Cooperation	Check for no Cooperation Among Services	If Cooperation Exists Check the Services that Work Together in Each Area of Cooperation			
		D.E.	Home Ec.	T. & I.	Vo-Ag
1. Preparation of curriculum materials including writing, art work, photography					
2. Joint use of printing equipment					
3. Joint use of photographic equipment					
4. Joint use of office space					
5. Other					

What do you see in the way of future developments in curriculum materials work in relationship to the Vocational Education Act of 1963?

APPENDIX B

October 1, 1964

Mr. Glenn W. Lewis
State Supervisor
Agricultural Education
State Department of Education
301 West Preston Street
Baltimore, Maryland 21201

Dear Mr. Lewis:

A study is being conducted by the Ohio Vocational Agriculture Curriculum Materials Service for the purpose of formulating guidelines for the organization and operation of state curriculum materials services for teachers of vocational agriculture.

One of the steps in formulating these guidelines will be to determine the kind of curriculum materials assistance the various states are providing their teachers. Will you please assist me in identifying the people working with curriculum materials and the type of services they are performing in your state by completing the enclosed questionnaire and returning it in the self-addressed envelope.

One purpose of identifying the people working with vocational agriculture curriculum materials is that I wish to obtain additional information from them concerning their work. One of the factors prompting this study is the provision in the Vocational Education Act of 1963 for services that improve the quality of vocational education programs. Your assistance will be greatly appreciated.

Sincerely yours,

Harlan E. Ridenour
Assistant Supervisor
Vocational Agriculture

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As a first step in this study we need to identify the persons working with curriculum materials and the type of work they are doing. Please indicate the information for your state in the space provided below.

Organization of Curriculum Materials Service	Yes	No
1. Our state provides curriculum materials for teachers of vocational agriculture through the voluntary efforts of several persons and/or agencies	—	—
2. Our state has an organized Vocational Agriculture Curriculum Materials Service, with a staff member in charge, from which teachers receive curriculum materials	—	—

Utilization of Graduate Assistants in the Preparation
of Curriculum Materials for Vocational Agriculture
Teachers

Number of graduate assistants involved in the preparation of vocational agriculture curriculum materials

If graduate assistants prepare curriculum materials approximately what percent of their time is devoted to this work

_____ %

Financing of Vocational Agriculture
Curriculum Materials Service

Method of Financing Vo - Ag Curriculum Materials Service	Approximate Percent of Funds from Each Source
1. Funds for operating the service are provided in the state vo-ag budget	_____
2. Funds for operating the service are provided by profits from the sale of materials to schools	_____
3. Other sources of funds for the operation of the service	_____
_____	_____
_____	_____

Information Concerning Professional Personnel Working with
Vocational Agriculture Curriculum Materials

Name and Address of Vocational Agriculture Curriculum Materials Specialist	Amount of Time Devoted to Vo-Ag Curriculum Materials Work	If part time is devoted to Vo-Ag Curriculum Materials work indicate approximate per- cent of time spent with cur- riculum materials and with the other major duty of the person
(Include both Agri- cultural Education and State Supervisory Staff Members)	Check if Full Time Devoted to Vo-Ag Curriculum Materials	
		% Time Curriculum Materials Other Major Duty
<u>Example</u> Frank Smith (Address here)	50	Agricultural Engineering
1.		
2.		
3.		
4.		
5.		
6.		

Please list any unusual circumstances that may affect the development of curriculum materials for vocational agriculture in your state. An example might be the Extension Service being unusually cooperative in preparing materials for vocational agriculture use.

APPENDIX C

April 7, 1965

Dr. L. P. Jacks
Subject Matter Specialist
Department of Agricultural Education
Mississippi State University
State College, Mississippi

Dear Dr. Jacks:

The increased educational demands of modern agriculture, including both farm and farm related occupations, has caused the job of teaching vocational agriculture to become more involved and time consuming. The teacher is called upon to help his students in solving problems in many different areas of agriculture. Keeping himself adequately informed poses a difficult problem for the teacher.

To help teachers in keeping abreast with modern agriculture and teaching procedures, most states are providing some degree of curriculum materials assistance to local schools. Some states have an organized curriculum materials service which provides this assistance while in other states individual staff members devote some time to providing this assistance for teachers. The assistance may consist of teacher and student curriculum materials that have been prepared by vocational agriculture personnel or of suitable materials prepared by other agencies that are made available to local schools for instructional use.

The Ohio Vocational Agriculture Curriculum Materials Service is conducting a study for the purpose of establishing guidelines for the organization and operation of state vocational agriculture curriculum materials services. To accomplish this, we need to know the practices that are being carried out in each of the states, the trends in the services being offered, and an evaluation of the different kinds of services that might be offered. Please complete the enclosed questionnaire and return it in the self-addressed stamped envelope.

Mr. Warren Weiler, State Supervisor of Vocational Agriculture, is very much interested in the results of this study. Dr. Ralph Bender, Chairman of the Department of Agricultural Education, The Ohio State University, has assisted with the planning of this study. Your assistance in providing this information for your state will be greatly appreciated.

Sincerely yours,

Harlan E. Ridenour, Director
Ohio Vocational Agriculture
Curriculum Materials Service

HER:bab
Enclosure

SECTION I

CURRICULUM MATERIALS SERVICES OFFERED BY STATES

In formulating guidelines for the development of a vocational agriculture curriculum materials service, recommendations will be based on the experiences of various states. A list of some of the curriculum materials services which might be performed for teachers is given in column 1 below.

- Column 1. Some of the sections in this column request the extent to which the service is offered in your state. Please indicate this by inserting the appropriate number in the block.
- Column 2. If your state offers this type of service, please indicate the approximate number of years it has been provided in column 2. If the service has never been provided, please mark "0" in the column, or if the service has been performed and then dropped, please mark with an "X".
- Column 3. Indicate your rating of the educational value of each of the services by means of a " " in the appropriate "value" column. Please give your rating regardless of whether or not the service has been offered in your state.

In the example below the 35 in the blocked area of column 1 indicates that the recommended list of motion pictures contains this number of films. The 7 in column 2 indicates that such a list has been provided for this number of years. The " " in the "high value" column of the rating of value indicates that the evaluator thinks this has high value.

COLUMN 1	COLUMN 2	COLUMN 3				
Type of curriculum materials service performed by Vo-Ag Supervisory and/or Teacher Education Staff	Mark number of years service has been offered <u>or</u> 0 if never offered <u>or</u> X if offered then dropped	Your rating of the value of each type of service. (Check every item even though not offered by your state)				
		Very High Value	High Value	Average Value	Little Value	No Value
EXAMPLE Provide teachers with a recommended list of free motion pictures related to Agricultural Education Number of motion pictures on the list <u>35</u>	7					

COLUMN 1	COLUMN 2	COLUMN 3				
Type of curriculum materials service performed by Vo-Ag Supervisory and/or Teacher Education Staff	Mark number of years service has been offered <u>or</u> 0 if never offered <u>or</u> X if offered then dropped	Your rating of the value of each type of service. (Check every item even though not offered by your state)				
		Very High Value	High Value	Average Value	Little Value	No Value
1. Prepare materials in form of teacher source unit which emphasizes educational objectives, problem areas, student & teacher activities, and lists of references but does not include much technical information. Number of such units prepared last 3 years ____						
2. Prepare materials in form of subject matter units which emphasize technical information required for teaching & include some suggestions for teaching procedures. Number of such units prepared during last 3 years ____						
3. Prepare materials in form of student resource units or workbooks designed to provide information students can study and apply to their problems. The material is structured so that teachers and students are guided logically through the problem area. Number of such units prepared during last 3 years ____						

COLUMN 1	COLUMN 2	COLUMN 3				
Type of curriculum materials service performed by Vo-Ag Supervisory and/or Teacher Education Staff	Mark number of years service has been offered <u>or</u> 0 if never offered <u>or</u> X if offered then dropped	Your rating of the value of each type of service. (Check every item even though not offered by your state)				
		Very High Value	High Value	Average Value	Little Value	No Value
4. Prepare materials in form of programmed instruction that may be used in such forms as scramble books or teaching machines. The material is in a single problem area designed for self teaching. Number of such units prepared during last three years__						
5. Select appropriate Extension Service, Experiment Station and other Agricultural agency bulletins for recommendation and/or distribution to schools.						
6. Select appropriate commercial materials for recommendation and/or distribution to schools.						
7. Prepare a curriculum materials newsletter or similar publication for distribution to teachers which describes various materials & announces the availability & source of curriculum materials. Number of issues per year__						

COLUMN 1	COLUMN 2	COLUMN 3				
Type of curriculum materials service performed by Vo-Ag Supervisory and/or Teacher Education Staff	Mark number of years service has been offered <u>or</u> 0 if never offered <u>or</u> X if offered then dropped	Your rating of the value of each type of service. (Check every item even though not offered by your state)				
		Very High Value	High Value	Average Value	Little Value	No Value
8. Produce graphic materials in chart, graph, sketch, or diagram form in approximately 8½" x 11" size that may be projected with the opaque projector, made into transparencies for overhead projection, or serve as a guide for teacher made charts. Number of such units of graphic materials produced during past three years ____						
9. Produce or purchase programmed instruction materials in vo-ag subject matter areas for distribution to teachers for class use. Number of programmed instruction units prepared last three years ____						
10. Assume leadership in the production of educational motion pictures for use in vo-ag classrooms. Number of motion pictures produced last 3 years ____						
11. Maintain a motion picture lending library consisting of films suitable for vo-ag classroom use. Number of films in lending library ____						

COLUMN 1	COLUMN 2	COLUMN 3				
Type of curriculum materials service performed by Vo-Ag Supervisory and/or Teacher Education Staff	Mark number of years service has been offered <u>or</u> 0 if never offered <u>or</u> X if offered then dropped	Your rating of the value of each type of service. (Check every item even though not offered by your state)				
		Very High Value	High Value	Average Value	Little Value	No Value
12. Maintain current list of recommended motion pictures suitable for vo-ag classroom use. Number of motion pictures on the list _____						
13. Assume leadership in the development of educational television programs for use in vo-ag classrooms. Number of educational television programs produced last 3 years _____						
14. Produce or assemble from other sources 2" x 2" slides in various vo-ag subject matter areas and make them available to teachers. Number of slide sets produced last 3 years _____						
15. Produce 35 mm slide films in various vo-ag subject matter areas and make them available to teachers. Number of slide films produced last 3 years _____						
16. Tape recordings of vo-ag subject matter materials are made available to teachers. Number of tape recordings produced last 3 years _____						

COLUMN 1	COLUMN 2	COLUMN 3				
Type of curriculum materials service performed by Vo-Ag Supervisory and/or Teacher Education Staff	Mark number of years service has been offered <u>or</u> 0 if never offered <u>or</u> X if offered then dropped	Your rating of the value of each type of service. (Check every item even though not offered by your state)				
		Very High Value	High Value	Average Value	Little Value	No Value
17. Provide models, mock up objects & specimens to teachers on sale or loan basis. (Example: electric wiring board.) Number of such units of materials produced during last three years ____						
18. Prepare & make available to teachers materials to aid in conducting dramatized educational experiences with students such as suggested procedures for role playing or plays. Number drama units prepared last three years ____						
19. Provide printed instructions for conducting demonstrations including lists of needed apparatus & where it may be obtained. Number of demonstrations for which instructions were prepared during last 3 years ____						
20. Provide materials for exhibits such as bulletin board displays, flannel graph materials, posters, flat pictures or other classroom displays that convey a story, facts, or ideas.						

COLUMN 1	COLUMN 2	COLUMN 3				
Type of curriculum materials service performed by Vo-Ag Supervisory and/or Teacher Education Staff	Mark number of years service has been offered <u>or</u> 0 if never offered <u>or</u> X if offered then dropped	Your rating of the value of each type of service. (Check every item even though not offered by your state)				
		Very High Value	High Value	Average Value	Little Value	No Value
21. Classify or index materials to facilitate appropriate use & filing by teachers. (Example: the Agdex filing system.)						
22. Sell curriculum materials to schools at cost or with a minimum profit. Percent of available materials sold to schools _____%						
23. Distribute materials free to teachers by mail or handouts at meetings. Percent available materials distributed free to schools _____%						
24. Printed curriculum materials are illustrated by use of pictures and/or drawings.						
25. Distribute materials in package form where teachers are provided all the curriculum materials for a course of study in one package.						
26. Provide materials in cafeteria style where teachers may choose from a wide selection of curriculum materials.						

COLUMN 1	COLUMN 2	COLUMN 3				
Type of curriculum materials service performed by Vo-Ag Supervisory and/or Teacher Education Staff	Mark number of years service has been offered <u>or</u> 0 if never offered <u>or</u> X if offered then drop 1	Your rating of the value of each type of service. (Check every item even though not offered by your state)				
		Very High Value	High Value	Average Value	Little Value	No Value
27. Other services performed by your state:						
a.						
b.						
c.						

SECTION II

ADMINISTRATION OF A CURRICULUM MATERIALS SERVICE

Many personnel conditions such as leadership, cooperation, and working relationships enter into the successful operation of a curriculum materials service. A list of conditions is given in Column 1 below.

- Column 1. Some of the sections in this column request the extent to which this condition exists in your state. Please indicate this by inserting the appropriate number in the block.
- Column 2. If this condition is present in your state, please indicate the number of years it has been applied in column 2. If the condition has never been applied, please mark "0" in the column, or if the condition has been applied and later discontinued, please mark with an "X".
- Column 3. Indicate your rating of the desirability of each of the conditions by means of a " " in the appropriate "value" column. Please give your rating regardless of whether or not the condition has been in effect in your state.

In the example the 10 in column 1 indicates that the College of Agriculture has provided support for the vocational agriculture curriculum materials service for this number of years, while the " " in the very high value column indicates this to be a highly desirable condition.

COLUMN 1	COLUMN 2	COLUMN 3				
Conditions desirable for the operation of a Vocational Agriculture Curriculum Materials Ser.	Mark number of years condition applied <u>or</u> 0 if it does not apply <u>or</u> X if applied then dropped	Your rating of the value of the condition for the operation of a curriculum materials service. (Check even though the condition does not apply in your state)				
		Very High Value	High Value	Average Value	Little Value	No Value
EXAMPLE The College of Agriculture provides support to the vo-ag curriculum materials service	10					

COLUMN 1	COLUMN 2	COLUMN 3				
Conditions desirable for the operation of a Vocational Agriculture Curriculum Materials Service	Mark number of years condition applied <u>or</u> 0 if it does not apply <u>or</u> X if applied then dropped	Your rating of the value of the condition for the operation of a curriculum materials service. (Check even though the condition does not apply in your state)				
		Very High Value	High Value	Average Value	Little Value	No Value
1. An advisory committee composed of vo-ag teachers, staff members, & other interested persons is used in guiding the curriculum materials work. Number of times advisory committee meets during the year____ Composition of Committee: No. Vo-Ag Teacher____ No. Staff Members____ No. Other Members____						
2. Members of the teacher education & vo-ag supervisory staffs are kept informed of the curriculum materials work. Number of times curriculum materials work discussed in staff meetings during the year____						
3. Members of the agricultural education & vo-ag supervisory staffs take part in the preparation of curriculum materials. Number of items prepared in this way during past 3 years____						

COLUMN 1	COLUMN 2	COLUMN 3				
Conditions desirable for the operation of a Vocational Agriculture Curriculum Materials Service	Mark number of years condition applied <u>or</u> 0 if it does not apply <u>or</u> X if applied then dropped	Your rating of the value of the condition for the operation of a curriculum materials service. (Check even though the condition does not apply in your state)				
		Very High Value	High Value	Average Value	Little Value	No Value
4. The application of curriculum materials to the teaching situation is explained to teachers in workshops or similar meetings. Number of items presented in this way during past three years ____						
5. Teachers of vocational agriculture take part in the preparation of curriculum materials. Number of items teachers took part in preparing during past 3 years ____						
6. The curriculum materials service has written policies approved by the administrative officials to direct the work of staff members. Date of last revision of policy statements ____						
7. Research and/or study is conducted to evaluate the usefulness of the curriculum materials work to the local vo-ag departments. Number of studies dealing with curriculum materials conducted during past 3 years ____						

COLUMN 1	COLUMN 2	COLUMN 3				
Conditions desirable for the operation of a Vocational Agriculture Curriculum Materials Service	Mark number of years condition applied <u>or</u> 0 if it does not apply <u>or</u> X if applied then dropped	Your rating of the value of the condition for the operation of a curriculum materials service. (Check even though the condition does not apply in your state)				
		Very High Value	High Value	Average Value	Little Value	No Value
8. Other departments in the University, Extension Service, & Experiment Station provide assistance in the preparation of vo-ag curriculum materials. Type of assistance obtained from other departments. No. of items during past year <u>Assistance</u> _____ Counseling _____ Editing _____ Writing _____						
9. Studies & surveys are used with teachers of vo-ag in determining curriculum materials needs.						
10. The recommendations of program development and/or curriculum committees are considered in determining curriculum materials needs.						
11. Leadership in curriculum planning is provided to local vo-ag departments through the preparation of new and different materials.						

COLUMN 1	COLUMN 2	COLUMN 3				
Conditions desirable for the operation of a Vocational Agriculture Curriculum Materials Service	Mark number of years condition applied <u>or</u> 0 if it does not apply <u>or</u> X if applied then dropped	Your rating of the value of the condition for the operation of a curriculum materials service. (Check even though the condition does not apply in your state)				
		Very High Value	High Value	Average Value	Little Value	No Value
12. Commercial & other interests outside education assist in the preparation of vo-ag curriculum materials such as providing technical information & guidance in the area of their speciality.						
13. Curriculum materials persons are responsible for searching out and selecting instructional materials to provide teachers with a balance of materials appropriate to the needs of the vo-ag curriculum.						
14. Other conditions existing in your state that affect the development of curriculum materials for vo-ag:						
a.						
b.						
c.						
<u>Regional or National Efforts</u> 1. Leadership should be provided on the regional and/or national level for coordinating curriculum materials work in vo-ag.	XXXXXX					

COLUMN 1	COLUMN 2	COLUMN 3				
Conditions desirable for the operation of a Vocational Agriculture Curriculum Materials Service	Mark number of years condition applied <u>or</u> 0 if it does not apply <u>or</u> X if applied then dropped	Your rating of the value of the condition for the operation of a curriculum materials service. (Check even though the condition does not apply in your state)				
		Very High Value	High Value	Average Value	Little Value	No Value
2. Materials should be freely exchanged from one state to another with a single office acting as a "clearing house" of information & facilities for disseminating appropriate materials among the states.	XXXXXX					
3. Materials suitable for widespread use should be produced in a single office for distribution to states such as the Southern Association of Agricultural Engineers & Vocational Agriculture.	XXXXXX					
4. There should be national and/or regional efforts to determine the curriculum materials needs in the local vocational departments.						

BIBLIOGRAPHY

Books

- Batchelder, Howard T., Editor, Audio-Visual Materials in Teacher Education, 1950 Yearbook of the Association for Student Teaching.
- Bigge, Morris L., Learning Theories for Teachers, Harper & Row, 1964.
- Bloom, Benjamin S., Editor, Taxonomy of Educational Objectives, David McKay Co., Inc., 1956.
- Corbally, John E., Jr., Jensen, T. J., and Staub, W. F., Educational Administration: The Secondary School, Allyn and Baun, 1961.
- Dewey, John, Logic, the Theory of Inquiry, Henry Holt and Company, 1938.
- Dewey, John, The School and Society, The University of Chicago Press, Chicago, Illinois.
- Education for a Changing World, Report of the Panel of Consultants on Vocational Education, U.S. Government Printing Office, 1964.
- Gouldner, Alvin W., Studies in Leadership, Harper Brothers, 1950.
- Harris, Chester W., Editor, Encyclopedia of Educational Research, The Macmillan Company, New York, 1960.
- Henry, Nelson B., Editor, Mass Media and Education, The fifty-third Yearbook, National Society for the Study of Education, 1954.
- Hilgard, Ernest R., Editor, Theories of Learning and Instruction, The sixty-third Yearbook of the National Society for the Study of Education, University of Chicago Press, 1964.
- Hilgard, Ernest R., Theories of Learning, Appleton-Century-Crofts, Inc., New York, 1956.
- Hill, Winfred F., Learning: A Survey of Psychological Interpretations, Chandler Publishing Company, 1963.

- Knowels, Malcolm S., Informal Adult Education, Association Press, 1950, Vol. 44, No. 2.
- Lionberger, Herbert F., Adoption of New Ideas and Practices, Iowa State Press, 1960.
- Lippitt, Ronald, Watson, Jeanne, and Westley, Bruce, The Dynamics of Planned Change, Harcourt, Brace, & World, Inc., 1958.
- Miles, Matthew B., Editor, Innovation in Education, Teachers College, Columbia University, 1964.
- Miller, Neil, et al., Graphic Communication and the Crisis in Education, Audio-Visual Communication Review, N.E.A., 1957.
- Research for Curriculum Development, Association for Supervision and Curriculum Development, National Education Association, 1957 Yearbook.
- Rogers, Everett M., Diffusion of Innovations, The Free Press of Glencoe, N. Y., 1962.
- Ross, Murray G. and Hendry, Charles E., New Understandings of Leadership, Association Press, 1957.
- Schramm, Wilbur, Editor, Mass Communications, University of Illinois Press, 1960.

Periodicals

- Guss, Carolyn and Donald L. Nicholas, "A Plea for Publicity Sharing Educational Media Evaluation," Educational Screen and Audiovisual Guide, February, 1965.
- Fearing, Franklin, "Human Communication," Audio-Visual Communication Review, Supplement 5, Sept.-Oct. 1962, Vol. 10, No. 5.
- Hamilton, J. Ronald, "The Place of Skills in Public Education," American Vocational Journal, Sept. 1963, Vol. 38, No. 6.
- Mobley, M. D., "Get the Facts--Then Tell the Story," The Agricultural Education Magazine, Dec. 1964, Vol. 37, No. 6.
- Smith, R. W. and A. W. Vander Meer, "Media and Education of the Disadvantaged: A Rational," Audio-Visual Instruction, Jan. 1965, Vol. 10, No. 1.

"Summary of Provisions in the Perkins Vocational Education Act,"
Prepared by U.S. Office of Education, American Vocational
Journal, Jan. 1964, Vol. 39, No. 1.

Wall, James E., "The Utilization of State Agricultural College
Publications in Vocational Agriculture Departments," The
Agricultural Education Magazine, April 1963, Vol. 35, No. 9.

Studies

Dougan, James E., An Evaluation of Selected Aspects of Supervision
of Vocational Agriculture in Ohio (unpublished Master's
thesis, The Ohio State University, 1954).

Miller, Howard L., Procedures for Improving the Use of Publications
in the Communications Process by Professional Leaders in
Agricultural Education (unpublished Ph.D. dissertation, The
Ohio State University, 1959).

Montgomery, Robert, Professional Needs of Teachers of Vocational
Agriculture in Alabama and Their Implications for In-service
Education (unpublished Ph.D. dissertation, The Ohio State
University, 1952).

Miscellaneous

Adopters of New Farm Ideas, North Central Regional Extension
Publication No. 13, 1962.

1963-1964 Annual Report, Southern Association for Agricultural
Engineers and Vocational Agriculture, July 1, 1963-June 30,
1964.

Mary Helen Mahar, Editor, The School Library as a Materials Center,
U.S. Department of Health, Education and Welfare, 1962.

Public Law 88-210, 88th Congress, H.R. 4955, An Act, December 18,
1963.

Ralph J. Woodin, Better Communication in Agricultural Education,
The Ohio State University, 1959.